

What is claimed is:

00197 1. A slotted antenna (1) having a first electrically conducting disc (10) which is offset from an electrically conducting base area (5) which forms a reference potential, the disc being connected at its outside edge (15) to the base area (5) by at least one first electrically conducting web (20, 21, 22), wherein the first disc (10) includes a recess (25); a second electrically conducting disc (30) is situated above the recess (25) and is connected at its outside edge (35) to the first disc (10) by at least one second electrically conducting web (40, 41, 42); and an antenna conductor (45) leads to the second disc (30).

2. The slotted antenna (1) according to Claim 1, wherein the outside edge (15, 35) of the first disc (10) and/or the second disc (30) is approximately circular.

3. The slotted antenna (1) according to Claim 1 or 2, wherein the recess (25) in the first disc (10) is approximately circular in shape.

4. The slotted antenna (1) according to Claims 1, 2 or 3, wherein the first disc (10) and/or the second disc (30) is designed approximately in the form of an n-sided shape, in particular with rounded corners.

5. The slotted antenna (1) according to one of the preceding claims, wherein the first disc (10) and/or the second disc (30) is designed to be approximately oval or elliptical.

6. The slotted antenna (1) according to one of the preceding claims, wherein the first disc (10) and/or the second disc (30) is designed to be asymmetrical.

7. The slotted antenna (1) according to Claim 3, inasmuch as this refers back to Claim 2,

wherein the circular area of the recess (25) of the first disc (10) corresponds approximately to the circular area of the second disc (30).

8. The slotted antenna (1) according to Claim 3, inasmuch as this refers back to Claim 2, wherein the circular area of the recess (25) of the first disc (10) is smaller than the circular area of the second disc (30).
9. The slotted antenna (1) according to one of the preceding claims, wherein the first disc (10) and the second disc (30) are approximately concentric.
10. The slotted antenna (1) according to one of the preceding claims, wherein the webs (20, 21, 22, 40, 41, 42) are approximately perpendicular to the discs (10, 30) and the base area (5).
11. The slotted antenna (1) according to one of the preceding claims, wherein three webs (20, 21, 22) are situated between the first disc (10) and the base area (5), and three webs (40, 41, 42) are likewise situated between the first disc (10) and the second disc (30).
12. The slotted antenna (1) according to Claim 11, wherein the three webs (20, 21, 22) between the base area (5) and the first disc (10) are each situated so they are offset by approximately  $120^\circ$  relative to one another, and the three webs (40, 41, 42) between the first disc (10) and the second disc (30) are also situated so they are offset by approximately  $120^\circ$  relative to one another.
13. The slotted antenna (1) according to Claim 11 or 12, wherein the webs (20, 21, 22) between the base area (5) and the first disc (10) are mutually rotated by  $60^\circ$  with respect to the webs (40, 41, 42) between the first disc (10) and the second disc (30).
14. The slotted antenna (1) according to one of the preceding claims, wherein the slotted antenna (1) is operable at a number of different frequency ranges corresponding to the number of discs (10, 30) used, the respective operating frequency depending on the slot length at the outside edge (15, 35) of the respective disc (10, 30).
15. The slotted antenna (1) according to one of the preceding claims,

wherein the slots formed by one or more adjacent webs (20, 21, 22; 40, 41, 42) between the base area (5) and the first disc (10) each has a length of approximately half a first operating wavelength, and the slots formed by one or more adjacent webs (40, 41, 42) between the first disc (10) and the second disc (30) each has a length of approximately half a second operating wavelength.

16. The slotted antenna (1) according to one of the preceding claims, wherein the recess (25) of the first disc (10) is arranged concentrically to the first disc (10).

17. The slotted antenna (1) according to one of the preceding claims, wherein at least one third disc (50) is provided between the first disc (10) and the second disc (30) and also includes a recess (55); the third disc (50) is connected to the outside edge (35) of the directly adjacent disc (30) above it by at least one third web which corresponds in particular to the at least of one second web (40, 41, 42) and is connected to the directly adjacent disc (10) beneath it by at least one fourth web (60, 61) on its own outside edge (65).

18. The slotted antenna (1) according to one of the preceding claims, wherein the diameter of a disc (10, 30) is greater, the smaller its distance from the base area (5).